

Date: Friday, 7/4/2008 12:49:33 PM  
User: Kim Johnston

# Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : STEP WELDMENT
Job Number : 40288	
Estimate Number : 12576	
P.O. Number :	Part Number : D3562041
This Issue : 7/4/2008 S.O. No. :	Drawing Number : D3562 REV E
Prsht Rev. : NC	Project Number : N/A
First Issue : 1 /	Drawing Revision : E
Previous Run : 37043	Material :
Written By :	Due Date : 7/28/2008 Qty: 4 Um: Each
Checked & Approved By : <u>JA 08 07 07</u>	
Comment : Est Rev:A New Issue 06-11-09 JLM	
Est rev B ECN 987 07.10.09 EC verified by: DD	
Est Rev:C ECN1048 07-12-18 DD verified by:ec	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D2622120C	Step Extrusion
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Qty	Part #	Description	Batch:
1	D2622-120C	Extrusion	B39316 ✓

Check Material for any Dents or Defects

08-07-14 SP

2.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1
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Comment: LARGE FABRICATION RESOURCE 1

1-Cut D2622 extrusion as per Dwg D3562

2-Deburr and bevel ends for welding

08-07-14 SP  
08-07-14 SP

3.0	QC5	INSPECT WORK TO CURRENT STEP
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Comment: INSPECT WORK TO CURRENT STEP

08-07-14 (X4)

4.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
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Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

08-07-14 SP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Drawing Name: STEP WELDMENT

Job Number: 40288

Part Number: D3562041

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



*SP LH*

*08-07*



*(2X)*

Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

*08-07-14*

*(X)*

6.0

D3560041

Arm Weldment



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

ARM WELDMENT

Batch: *B-35295*

*08-07-21*

*SP*

7.0

D3560043

Arm Weldment



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

ARM WELDMENT

Batch: *B-35297* ✓

*08-07-21*

*SP*

8.0

MS20600AD4W5

Blind Rivet



Comment: Qty.: 32.0000 Each(s)/Unit Total : 128.0000 Each(s)

Blind Rivet

batch: *B106431* ✓

*08-07-21*

*SP*

9.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1- Transfer drill Rivet holes as per dwg D3562.

*SP LH 08-07-21*

2-Touch-up rivet holes with alodine as per dwg d3562

*SP LH 08-07-21*

3-Rivet legs using Magnabond as per dwg D3562.

*SP LH 08-07-21*

\*\*\*\*\*Ensure to wipe off any excess magnabond \*\*\*\*\*

A/R Magnabond 6398

Batch: *M106695*

*SP LH 08-07-21*

10.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*08/07/23*

*(4X)*

*(4X)*

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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Drawing Name: STEP WELDMENT

Job Number: 40288

Part Number: D3562041

Job Number:



Seq. #:

Machine Or Operation:

Description :

11.0

D2734

Step End Plate



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick:

Qty Part Number

Description Batch

2 D2734

End Cap

B36520

08-07-24 SP

12.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Weld end caps as per Dwg D3562 & QSI 004. Inspect for foreign objects as per QSI 024.

A/R Aluminum Rod

H 106834

2-Grind end cap welds flush as per Dwg D3562

08/07/24 SP

08-07-24 SP

4x

13.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

08-07-25

14.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08-07-25

15.0

POWDER COATING

POWDER COATING



M108523



08-07-25

Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

START TIME:

12:50

OVEN TEMPERATURE:

320

FINISH TIME:

1:20

M-L 08/07/28

16.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Wing Walk as per Dwg D3562 and QSI 005 4.4

Batch: M108496

FDL 08/07/28

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
8/7/28 Hh	14.1	Touch up ends of steps as per QS2005 Resment change	HB	08/07/28	4	08/08/28	08/14/28

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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Job Number:



Seq. #:

Machine Or Operation:

Description :

17.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

*EP 08/07/29 (4)*

18.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Assembly Kit

*6-A EP 08/07/29 (4)*

19.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

*08/07/30 (4)*

Job Completion



*MF 08-07-29*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries



D3562-1, MAKE FROM EXTRUSION D2622

D3560-043 ARM WELDMENT

D3560-041 ARM WELDMENT

D3560-042 ARM WELDMENT

D3560-044 ARM WELDMENT

D3562-1, MAKE FROM EXTRUSION D2622

2  
APPLY BLACK ANTI-SKID ON TOP SURFACE TO BOTTOM OF TOP RADIUS

2  
APPLY BLACK ANTI-SKID ON TOP SURFACE TO BOTTOM OF TOP RADIUS

TRANSFER DRILL #30 DEBURR & TOUCH UP HOLES WITH CHEMICAL CONVERSION COAT BEFORE RIVETING (32 PLACES PER STEP)

REFER TO STEP END DETAIL

INSTALL MS20600AD4W5 RIVET (32 PLACES PER STEP)

MEASURED BEFORE END CAPS WELDED IN PLACE

MEASURED BEFORE END CAPS WELDED IN PLACE

FWD

FWD

ROUND CORNER OF EXTRUSION TO MATCH BEND RADIUS OF END PLATE

NOTE: ALL WELDS SHALL BE 100% VISUALLY INSPECTED BY A QUALIFIED INSPECTOR PER DART QSI 004

D2734 END PLATE (TYP 2 PLACES)

TYPICAL STEP END DETAIL  
SCALE 1:2

D3562-041 LH STEP ASSEMBLY

D3562-042 RH STEP ASSEMBLY

# NOTES:

1) MATERIAL: N/A

2) FINISH:

i) CHEMICAL CONVERSION COAT STEP EXTRUSION PER DART QSI 005 4.1 BEFORE ASSEMBLY

ii) POWDER COAT ASSEMBLY GLOSS WHITE (4.3.5.1) OR GREY SANDTEX (4.3.5.6) OR BLACK SANDTEX (4.3.5.7) OR GREEN SANDTEX (4.3.5.8) PER DART QSI 005 4.1

iii) BLACK ANTI-SKID PAINT PER DART QSI 005 4.4

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: NONE

7) WEIGHT: 8.79 lbs

8) INSTALL ARM WELDMENTS WITH A LAYER OF MAGNOBOND 6398 BETWEEN THE ARM WELDMENT AND STEP EXTRUSION. FILL ANY TOOLING HOLES WITH MAGNOBOND 6398. CLEAN OFF EXCESS BEFORE POWDER COATING.

9) WELDING: PER DART QSI 004

QTY -041	QTY -042	P/N	DESCRIPTION
X	X	D3562-041	LH STEP ASSEMBLY
		D3562-042	RH STEP ASSEMBLY
1		D3560-041	ARM WELDMENT
	1	D3560-042	ARM WELDMENT
1		D3560-043	ARM WELDMENT
	1	D3560-044	ARM WELDMENT
32	32	MS20600AD4W5	RIVET
2	2	D2734	END PLATE

E	ADD QTY (2) TO D2734 END PLATE ON D3562-042	PH	08.01.11
D	REMOVE D2808 SPACER NOTE; REDRAWN IN SOLIDWORKS	DC	07.11.16
C	NOW MAGNOBOND, ADD D2808, REMOVE 4 RIVETS	CP	07.06.19
B	ARMS NOW RIVETED TO STEP	CP	07.01.15
A	NEW ISSUE	CP	06.09.26
REV.	DESCRIPTION	BY	DATE
DESIGN	JP		
DRAWN	LE		
CHECKED	LE		
MFG. APPR.	JP		
APPROVED	JP		
DE APPR.	JP		
DATE	08.01.11		

DART AEROSPACE LTD  
HAWKESBURY, ONTARIO, CANADA

DRAWING NO.

D3562

STEP

ASSEMBLY

REV. E

SHEET 1 OF 1

SCALE

1:5

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